

From: Barmakian, Nancy [Barmakian.Nancy@epa.gov]
Sent: 3/4/2021 5:03:27 PM
To: Nesci, Kimberly [Nesci.Kimberly@epa.gov]
CC: Goodis, Michael [Goodis.Michael@epa.gov]
Subject: RE: Can you send me your talking points

Thanks so much.

From: Nesci, Kimberly <Nesci.Kimberly@epa.gov>
Sent: Thursday, March 04, 2021 12:00 PM
To: Barmakian, Nancy <Barmakian.Nancy@epa.gov>
Cc: Goodis, Michael <Goodis.Michael@epa.gov>
Subject: RE: Can you send me your talking points

Here you go, Nancy:

- In December 2020, OPP's Analytical Chemistry Lab (ACB) tested Clarke product (Anvil 10+10), and both fluorinated and un-fluorinated High Density Polyethylene (HDPE) containers for the presence of PFAS compounds.
- ACB is also in the process of developing a method for quantitative detection of PFAS in oily substances.
- With regards to containers, ACB rinsed containers with a solvent to determine the presence of PFAS. ACB found the following:
 - Fluorinated containers provided by Clarke do contain PFAS: Short and long-chain PFAS compounds (C4, C5, C6, C7, C8, C9, C10, and C11), ranging from 0.05 ppb for C11 up to 32 ppb for C4.
 - Unfluorinated containers provided by Clarke showed trace amounts of PFAS (near the limit of detection for the equipment used); ACB believes this is as a result of cross-contamination rather than the unfluorinated containers themselves, based on the small levels and the nature of the PFAS compounds.
- With regards to Anvil 10+10, ACB found the following:

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

- Clarke sample from the production line is cleaner (in terms of PFAS) than those that have been stored in containers (30-gallon drum and 2.5-gallon jug).
- Sample of Clarke product directly from production line shows trace level of some PFAS and could be attributed to cross contamination.
- Samples of Clarke product stored in fluorinated containers (30-gallon drum and 2.5-gallon jug) show higher levels of PFAS (3-4x higher than production sample). However, the number of PFAS compounds found in the samples and their respective levels are ~100 fold less than the ones in the rinsates.
- PFAS Found: Short and long-chain compounds (C4, C5, C6, C7, and C11) ranging from 0.01 ppb for C7 to 0.22 ppb for C6.
- Based on this, ACB hypothesizes that PFAS may be formed in the process of fluorinating High- Density Polyethylene (HDPE) containers then leach into the Anvil 10+10 product. There is a plausible chemical pathway for this to occur. At this point, ACB does not have enough data to determine the leaching rate of PFAS from containers onto the products.
- OPP is aware that many companies use fluorinated HDPE containers to store and distribute pesticide products. OPP is working closely with OPPT and OECA. OECA is seeking additional information from the company Clarke uses to fluorinate their containers.
- It is unclear at this point:

Ex. 6 Personal Privacy (PP)

- whether this may be happening to other products, pesticide products and otherwise.
 - whether this is specifically as a result of the process that Ex. 6 Personal Privacy (PP) uses or can happen with any HDPE fluorination process.
 - the conditions under which PFAS is more or less likely to leach into pesticide products (solvents, temperature, time, etc...).
- Next Steps – Laboratory Testing
 - To determine the scope of the issue with PFAS in fluorinated HDPE containers, we are testing different fluorinated containers to see if they contain leachable PFAS, and also to see if PFAS can be leached by water and water containing surfactants, the inerts for most of pesticide products.
 - Other Containers
 - In February, ACB ordered several different brands of fluorinated containers that are available commercially from different container vendors (US Plastic 2.5 gal jugs, Basco, Fisher Thermo Scientific Nalgene bottles, Qorpak bottles). While many were backordered, we received most containers by February 16th, 2021. Testing will proceed the week of February 22nd. We do not know if any of those containers were fluorinated by Ex. 6 Personal Privacy (PP). We will try to determine the fluorination company, though it's unclear as to whether we'll be able to obtain this information.
 - Conditions Affecting Leaching
 - ACB is planning to perform PFAS leaching study using methanol, our initial rinsing solvent as the representative for organic solvent/oily products, water and aqueous surfactant solution, as representatives of many of the pesticide products. May consider time and temperature along with the solvents/typical inerts. We can also test real-world products available at the laboratory (e.g., disinfectant products).
 - Other Communications:
 - FDA, USDA
 - Household and Consumer Products Association (HCPA); Crop Life America (CLA); Ag Container Recycling Council (ACRC)

-----Original Message-----

From: Barmakian, Nancy <Barmakian.Nancy@epa.gov>

Sent: Thursday, March 4, 2021 11:13 AM

To: Nesci, Kimberly <Nesci.Kimberly@epa.gov>

Subject: Can you send me your talking points

I'd like them to be basis of talking points for DEP commissioner.

Sent from my iPhone